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Europäisches  
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CITATIONS

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Search RPT rec

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INFINEUM I.P. LAW DEPT  
MILTON HILL

UJA 17/4/03

Datum/Date

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INFINEUM I.P. LAW DEPT

Zeichen/Ref./Réf.

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MILTON HILL

Anmeldung Nr./Application No./Demande n°/Patent Nr./Patent No./Brevet n°  
02256354.8

Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire

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COMMUNICATION

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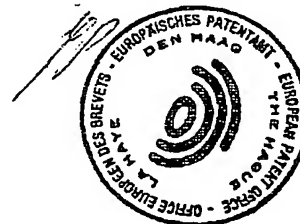
- ☒ the European search report
- ☐ the declaration under Rule 45 EPC
- ☐ the partial European search report under Rule 45 EPC
- ☐ the supplementary European search report concerning the international application under Article 157(2) EPC relating to the above-mentioned European patent application. Copies of the documents cited in the search report are enclosed.

The following specifications given by the applicant have been approved by the Search Division :

- ☒ Abstract ☒ Title ☒ Figure
- ☐ The abstract was modified by the Search Division and the definitive text is attached to this communication.
- ☐ The following figure will be published with the abstract, since the Search Division considers that it better characterises the invention than the one indicated by the applicant.
- Figure:
- ☐ Additional copy(copies) of the documents cited in the European search report.

## REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.



EPO Form 1507 02.93




### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-5 and 12-15

A lubricating oil composition comprising a major amount of oil of lubricating viscosity and a minor amount of at least one metal-containing detergent, wherein the composition has a total ash content of less than 1 weight% based on the total weight of the lubricating oil composition and its use in internal combustion engines.

2. Claims: 6-11

A internal combustion engine



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	EP 1 167 497 A (CHEVRON ORONITE JAPAN LTD) 2 January 2002 (2002-01-02) * page 1 - page 2, line 55; claim 20; examples 1-8 * * paragraph [0071] - paragraph [0072] * ---	1-15	C10M171/00 C10M129/54 //(C10M171/00, 129:10,129:54, 135:10,137:10, 159:22, 159:24), C10N30:04, C10N30:12, C10N40:25
X	US 2002/098991 A1 (DUNN ADRIAN ET AL) 25 July 2002 (2002-07-25) * paragraph [0001] - paragraph [0002]; claim 6; example 1 * ---	1-15	
X	US 5 672 570 A (MIYAJI TOMOMI ET AL) 30 September 1997 (1997-09-30) * column 1, line 10 - line 25; example 3 * ---	1-5	
Y	EP 1 104 800 A (ORONITE JAPAN LTD) 6 June 2001 (2001-06-06) * paragraph [0001] - paragraph [0003]; claims 10,11 * * paragraph [0044] - paragraph [0053] * ---	12-15	
Y	"Erläuterung zum Memorandum der BRD zur Fortschreibung der EU-Kraftstoffrichtlinie bzgl. des Schwefelgehaltes von Kraftstoffen" BMU, [Online] 22 August 2001 (2001-08-22), pages 1-4, XP002227732 Retrieved from the Internet: <URL:www.bmu.de/sachthemen/luft/erklaerung-memorandum.htm> [retrieved on 2003-01-16] * page 1, paragraph A * * page 2, paragraph D * --- -/--	12-15	TECHNICAL FIELDS SEARCHED (Int.Cl.7) C10M
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 28 March 2003	Examiner Glod, G
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	

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EPO FORM 1503 03.82 (P04C01)



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	WO 02 48293 A (OPENSHAW MARTIN J ;MEFFERT MICHAEL W (US); ROOS JOSEPH W (US); ETH) 20 June 2002 (2002-06-20) * page 1, line 5 - line 21; claims 1-7,25; figures 3,4 * * page 6, line 10 - page 8, line 6 * * page 14, line 8 - line 18 * ---	6,8,9	
X	WO 00 79117 A (CATERPILLAR INC) 28 December 2000 (2000-12-28) * page 1, line 5 - line 12 * * page 9, line 11 - line 18; claims 1-7 * ---	6,7,10, 11	
X	GB 2 350 865 A (CATERPILLAR INC) 13 December 2000 (2000-12-13) * page 7, line 4 - page 8, line 4; claim 1; figure 1 * ---	6,9-11	
A	WO 02 18521 A (PACE STUART ;BARBOUR ROBERT HOWIE (GB); EXXONMOBIL RES & ENG CO (U) 7 March 2002 (2002-03-07) * page 2, line 4 - line 14; claims 1-13; table 3 * -----	1-15	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
Place of search		Date of completion of the search	Examiner
MUNICH		28 March 2003	Glod, G
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 25 6354

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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28-03-2003

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 1167497	A	02-01-2002	CA	2349411 A1	02-12-2001
			EP	1167497 A2	02-01-2002
			JP	2002053888 A	19-02-2002
			US	2002019320 A1	14-02-2002
-----					
US 2002098991	A1	25-07-2002	EP	1195425 A1	10-04-2002
			CN	1347969 A	08-05-2002
			EP	1195426 A1	10-04-2002
			JP	2002161292 A	04-06-2002
-----					
US 5672570	A	30-09-1997	JP	7102273 A	18-04-1995
			US	5525247 A	11-06-1996
-----					
EP 1104800	A	06-06-2001	JP	2001158896 A	12-06-2001
			CA	2327384 A1	02-06-2001
			EP	1104800 A2	06-06-2001
-----					
WO 0248293	A	20-06-2002	AU	2742202 A	24-06-2002
			WO	0248293 A1	20-06-2002
-----					
WO 0079117	A	28-12-2000	AU	5608200 A	09-01-2001
			WO	0079117 A1	28-12-2000
-----					
GB 2350865	A	13-12-2000	US	6216458 B1	17-04-2001
			DE	10028608 A1	08-02-2001
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WO 0218521	A	07-03-2002	WO	0218521 A2	07-03-2002
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